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The Effects Of Cultural Values And Habits On Bicycle Use- Konya Sample

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Abstract

One of the primary factors causing an upheaval of environmental problems in cities is the consumption habits in transportation and the ever-creation of a demand for these habits. Consequently, the cultural values and habits need to be altered to enable a sustainable transportation planning. In our current day, policies need to be developed aimed at the improvement of bicycle utilization, being among the environmentally friendly modes of transportation, in order to reduce transportation-caused urban environmental problems. Therefore, the purpose of this study is to make people gain the habit of bicycle riding being one of the basic sources in the sustainable transportation in cities or the revitalization of habits on the verge of extinction. Konya city has been selected as the sampling field for the determination of the impact of the societal cultural values and habits on bicycle riding and for this aim, survey study and observations were made in this city. As a result of the assessment of this survey study, problems restricting bicycle riding and originating from cultural values and habits have been identified and suggestions have been developed aimed at resolving these issues.

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Keywords:

1. Introduction

Together with the development of technology, the fast-paced increase in the use of automobiles and the transportation habits evolving towards personal motorized vehicles, all result in the cities developing in an automobile-centered manner, afar from sustainability. In this respect, the politicians are giving their decisions based on oriented will instead of what is right for sustainability. Thus, the decision-giver motives of the persons are

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oriented with their demands evolving in line with their cultural values and habits. However, the most threatening dimension here is whether the public is placing a correct demand or not. Human beings, consuming the surrounding resources, possesses the power to affect the environment as an individually, both positively and negatively. When the necessity of consumption of each individual in the society is considered, increase or decrease of environmental pollution can be obtained depending on the behaviors of the individual. The cultural values are important factor that significantly determine the world-views and personalities of individuals as well as the societies, and that also shapes the habits thereof. People are influenced by cultural values, but they also influence them back, and even re-create them. Today, it is a widely accepted fact that the world is becoming more and more unlivable for the living beings as a result of human actions (Kılıç, 2008). The social and economic understanding of people is threatening the natural life (Joseph, 2006). The human being is elevating its living quality on economic terms thanks to the ever-developing science, technology and industry on one hand and harming the environment on the other (Rodda, 1991). In order to attain a new societal system, the ethical approaches that direct and also question human behaviors need to be environmentally friendly (Kılıç, 2008).

The most important factor in ensuring a sustainable transportation planning can be possible by the development of transportation with bicycle among the modes of transport without an engine. Improving bicycle riding in our cities can, in turn, only be possible by changing the societal cultural values and habits in selection of mode of transport towards bicycle riding.

2. Material and Methodology

The material in this study is bicycle riding in Konya city. On site observations and survey application has been used as the method to determine the impacts of city-wide cultural values and habits on bicycle riding. In the determination of the sample size for survey application, the confidence level and tolerance amount was taken as 99% and 0.04, respectively. Thus, the population size, i.e., Konya city population has been accepted as 1.000.000 and it has been decided to apply the survey to 1000 persons. The surveys were applied to two groups: bicycle riders (500 persons) and non-bicycle riders (500 persons).

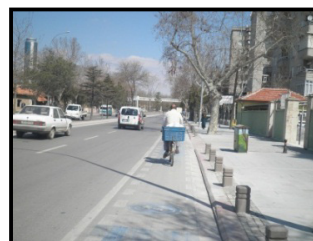
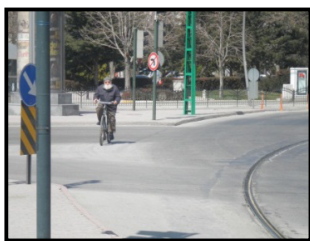
In the evaluation of the surveys, SPSS 17.0 program frequency analysis and chi-square test was utilized and the reliability rate was taken as 0.05.

3. Research Findings

The research findings are based on the observations made at the site and the survey study made at Konya city.

3.1. Observations Made on Site

As a result of the observations made on site, it was seen that there are some people riding bicycle for a long time, to long distances and four seasons, despite their old age, and the habit of bicycle riding was present in the city (Photograph 1 and 2). There is no work undertaken in the overall city to train the people that do not know how to ride a bicycle and make them bicycle riders. There is bicycle renting service at 40 stations for the people who do not ride a bicycle since they do not own one. However, owing to the fact that this system is percent at the main arteries of the city and no relation has been established with the residences; it is observed that the rate of utilization is rather low (Photograph 3 and 4) (Eryiğit, 2012).



Photograph 1. Presence of the habit of bicycle rising in the overall city at older ages and for long distances (In front of Konya Metropolitan Municipality) (Original 2012)



Photograph 3. Ihsaniye junction (Original 2012)

Photograph 2. Using bicycle to carry load (Ankara Avenue) (Original 2012)



Photograph 4. Yeni İstanbul Avenue (Original 2012)

3.2. Survey Findings

In order to identify the impacts of cultural values and habits in Konya city on bicycle riding; The usage durations of the bicycle riders, purposes of transport, reasons of selecting bicycle riding, bicycle riding status depending on climatic conditions and their state of contribution to problems originating from cultural values have been identified. For the subjects that do not ride bicycle, the survey study has put forth the answers to the following questions: their purposes of transport during the day, whether they have even ridden a bicycle or not, if yes, for what purpose and which frequency were they riding a bicycle, their status of contributing to the reasons related to the cultural values and habits having an effect not preferring to ride a bicycle, with what purpose and frequency would they chose to ride a bicycle should the factors causing the non-preference of bicycle riding be eliminated, the impacts of owning a private vehicle on bicycle riding and the status of owning a private vehicle depending on the distance of travel.

- *The analysis of the opinions of the bicycle riding subjects regarding the cultural values and habits:*

As a result of the evaluation of the survey studies, it has been determined that 22.8% of the subjects have been riding a bicycle for 0-5 years, 32.6% for 6-10 years, 15.2% for 11-15 years, 11.2% for 16-20 years and 18.2% for 21 years and above (Table 1) (Eryiğit, 2012).

Table 1. Period of riding a bicycle

How long have you been riding a bicycle?												
Values	0-5 years		6-10 years		11-15 years		16-20 years		21 years and above		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity
	22,80%	114	32,60%	163	15,20%	76	11,20%	56	18,20%	91	100,00%	500

The evaluation of the purposes of travels made with bicycle has shown that the use was mostly related to socio-cultural (55.4%) travels, whereas the infrequent use was mostly related to shopping purposes (49.4%). For travels with education purpose, bicycle riding is mostly classified as never preferred (72.2%) (Table 2) (Eryiğit, 2012).

Table 2. Purposes of the travels made with bicycle

For what purposes do you ride a bicycle?								
Values	Frequently		Sometimes		Never		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
Business	28,80%	144	13,00%	65	58,20%	291	100,00%	500
Shopping	25,80%	129	49,40%	247	24,80%	124	100,00%	500
School / education	15,60%	78	12,20%	61	72,20%	361	100,00%	500
Socio-cultural	55,40%	277	29,40%	147	15,20%	76	100,00%	500
Other	7,80%	39	6,00%	30	86,20%	431	100,00%	500

Table 3 demonstrates the analysis of the opinions of the subjects related to the habits playing a role in their preference to ride a bicycle. As a result of the evaluations, it was seen that the ratio of the people riding a bicycle to feel happy is 82.2%, whereas the ratio of the people preferring to ride a bicycle since it is a flexible mode of transport, not dependent upon a schedule, time and route proved to be 69% (Eryiğit, 2012).

Table 3. The reasons related to the cultural values and habits influencing the preference to ride a bicycle

What is your status of contributing to the reasons originating from cultural values and habits in your preference of riding a bicycle?								
Values	I agree		Indecisive		I don't agree		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
Since it is a flexible mode of transport	69,00%	345	12,20%	61	18,80%	94	100,00%	500
Because I feel happy	82,20%	411	6,80%	34	11,00%	55	100,00%	500

Since bicycle riding is a mode of transport taking place in the open air, the use of bicycle by the subjects depending on the seasonal conditions determine their accustomedness to this mode. Consequently, Table 4 presents the analysis of the subjects riding a bicycle depending on the seasonal conditions. The evaluations made show that the rate of bicycle riders on a hot and sunny day is 96.2%, 36.4% on a rainy day, 28.4% on a cold day, 19.6% on a snowy day and 31.4% on a foggy day. The results of the analysis assessment indicate that, despite the rate of bicycle riding decreases on cold and snowy days, there is a habit of riding a bicycle in Konya city at every climatic condition (Eryiğit, 2012).

Table 4. Status of riding a bicycle according to the climatic conditions

What is your frequency of riding a bicycle depending on climatic conditions?								
Values	I ride		Indecisive		I don't ride		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
On rainy days	36,40%	182	6,20%	31	57,40%	287	100,00%	500
On cold days	28,40%	142	4,00%	20	67,60%	338	100,00%	500
On snowy days	19,60%	98	3,20%	16	77,20%	386	100,00%	500
On foggy days	31,40%	157	5,00%	25	63,60%	318	100,00%	500
On hot / sunny days	96,20%	481	1,00%	5	2,80%	14	100,00%	500

Table 5 evaluates the problems of bicycle riders originating from the social structure of the society. The rate of the bicycle riders complaining about societal pressure, the society finding bicycle riding strange and not befitting is 27.2%. As a result of the analysis conducted, it was determined that there was no societal estranging towards bicycle riding (Eryiğit, 2012).

Table 5. Status of contributing to the problems related to the cultural values encountered during bicycle riding

What is your status of contributing to the problems related to the cultural values encountered during bicycle riding ?								
Values	I agree		Indecisive		I don't agree		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
Societal pressure (estranging, not finding befitting, etc.)	27,20%	136	5,20%	26	67,60%	338	100,00%	500

- *The analysis of the opinions of subjects not riding a bicycle on cultural values and habits:*

When the purposes of transport of the subjects not riding a bicycle in overall Konya is analyzed, it was seen they were traveling for business purposes (37.2%), education (26.6%), socio-cultural (21%), shopping (13.8%) and other purposes (1.4%) (Table 6) (Eryiğit, 2012).

Table 6. Purposes of travels made during the day by subjects who do not ride a bicycle

For what purposes do you travel during a day?												
Values	Business		Education		Shopping		Socio-cultural		Other		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity
	37,20%	186	26,60%	133	13,80%	69	21,00%	105	1,40%	7	100,00%	500

Since habits play a significant role in the selection of a mode of transport and it is easier to recover a habit that has become obsolete in time; the subjects were asked whether they had formerly ridden a bicycle or not and if yes, what was their purpose of riding a bicycle in the past. The evaluation of the analysis made based on this survey findings showed that 70.8% of the currently non-riders used to ride a bicycle in the past (Table 7). However, it was determined that most of the subject that have ridden a bicycle in past, did this for socio-cultural purposes (58.8%) (Table 8) (Eryiğit, 2012).

Table 7. Rates of bicycle riding in the past

Have you ridden a bicycle in the past?						
Values	Yes		No		Total	
	%	Quantity	%	Quantity	%	Quantity
	70,80%	354	29,20%	146	100,00%	500

Table 8. The purpose of the travels made with a bicycle in the past

Formerly, what was your purpose and frequency of riding a bicycle?								
Values	Frequently		Sometimes		Never		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
Business	11,00%	39	9,00%	32	79,90%	283	100,00%	354
Shopping	9,30%	33	21,20%	75	69,50%	246	100,00%	354
Education	9,00%	32	13,30%	47	77,70%	275	100,00%	354
Socio-cultural	58,80%	208	27,40%	97	13,80%	49	100,00%	354
Other	9,60%	34	2,80%	10	87,60%	310	100,00%	354

Table 9 presents the analysis of the status of contributing to not riding a bicycle due to problems originating from cultural values and habits. The assessment made shows that the subjects were not currently riding a bicycle since they did not know how to ride a bicycle (20.8%), they did not own a bicycle (25.2%), they did not like to ride a bicycle (17%), due to societal pressure (18.6%) and due to negative climatic conditions (35.4%) (Eryiğit, 2012).

Table 9. The rate of reasons related to cultural values and habits affecting not riding a bicycle

What is your status of contributing to the cultural values and habits among your reasons of not riding a bicycle?								
Values	I agree		Indecisive		I don't agree		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
I do not how to ride a bicycle	20,80%	104	0,40%	2	78,80%	394	100,00%	500
I do not have a bicycle	25,20%	126	2,40%	12	72,40%	362	100,00%	500
I do not like riding a bicycle	17,00%	85	24,20%	121	58,80%	294	100,00%	500
Because my surrounding would reproach me (societal pressure)	18,60%	93	11,00%	55	70,40%	352	100,00%	500
Due to negative climatic conditions	35,40%	177	8,80%	44	55,80%	279	100,00%	500

Table 10 elaborates the status of the currently non-riders to prefer bicycle riding in case their reasons of non-preference of this mode of transport are eliminated. As a result of the evaluation of this analysis, it was found that 45.4% and 24.8% of the subjects would frequently ride a bicycle to their travels for socio-cultural reasons and shopping purposes, respectively.

It has been put forth that arrangements to be made aimed towards transportation with bicycle would cause an increase in the rate of bicycle riding (Eryiğit, 2012).

Table 10. Status of riding a bicycle depending on the purpose of travel in case the reasons of not riding a bicycle are eliminated

If your reasons of not riding a bicycle were to be eliminated, for what purposes and with what frequency would you ride a bicycle?								
Values	Frequently		Sometimes		Never		Total	
	%	Quantity	%	Quantity	%	Quantity	%	Quantity
Business	22,20%	111	17,20%	86	60,60%	303	100,00%	500
Shopping	24,80%	124	43,40%	217	31,80%	159	100,00%	500
Education	20,20%	101	10,40%	52	69,40%	347	100,00%	500
Socio-cultural	45,40%	227	39,60%	198	15,00%	75	100,00%	500
Other	6,80%	34	1,40%	7	91,80%	459	100,00%	500

There might be decreases in the rate of bicycle riding in cities owing to the rapid increase of owning a private vehicle. Thus; the following table displays the comparative analysis of bicycle riding with private vehicle owning. A significant relationship was found in the comparison of bicycle riding with private vehicle ownership (chi-square=4,725, df=1, $p=0,030<0,05$). The analysis have put forth that most of the subjects that were not riding a bicycle owned a private vehicle and private vehicle ownership decreased the rate of bicycle riding (55.9%) (Table 11) (Eryiğit, 2012).

Table 11. The impact of private vehicle ownership on bicycle riding

Do you ride a bicycle?								
Values		Yes		No		Total		P
		%	Quantity	%	Quantity	%	Quantity	
Do you own a private vehicle?	Yes	44,10%	113	55,90%	143	100,00%	256	0,03
	No	52,00%	387	48,00%	357	100,00%	744	
	Total	50,00%	500	50,00%	500	100,00%	1000	

4. Results and Recommendations

In order to overcome the current issues such as ever-increasing air pollution, global warming, energy and resource bottleneck that negatively influence our life quality, traffic and related problems of the cities need to be resolved in the framework of sustainability principles. In order to object to losing the environmental values in our habitat, increase the living quality in the cities, making sure that our children can inherit a more livable environment and to save our cities from the negative effects of vehicle traffic, bicycle riding, as one of the leading tools in sustainable transport planning, needs to be improved, the bicycle riders have to be protected and bicycle riding has to be improved an important alternative in-city mode of transportation. However, the services provided in transportation are directly associated with the users. The selection of the mode of transport is closely related to the habits and cultural values of the individuals and the society as a whole. Therefore, in order to support the sustainable development in our cities, bicycle riding should be recovered despite its current status as an almost-forgotten habit and the societal cultural values need to be oriented towards bicycle riding.

In this study where the impact of the cultural values and habits of Konya city on bicycle riding was analyzed, it was found out that the habit of bicycle riding was present in the overall city. However, it was observed that this habit concentrated mostly around older ages. The main reasons of the non-rider subjects of not preferring this mode were mainly habits and not owning a bicycle. Nevertheless, it has been determined that, provided that the necessary arrangements are made, the non-riders could steer towards the habit of bicycle riding as a mode of transport.

With the aim of altering the cultural values and habits in Konya city related to the selection of the mode of transport and increase the rate of bicycle riding; a free-of-charge / rental bicycle pools need to be created aimed at the people that do not own a bicycle, Trainings should be provided to the persons that do not know how to ride a bicycle and entertaining campaigns have to be organized to enable the new generation to gain the habit of bicycle riding. Furthermore, the occupation chambers, non-governmental organizations and the community has to be organized in order to disseminate the habit of bicycle riding all round the city; support to bicycle-friendly campaigns need to be increased and public participation should be ensured at decisions regarding bicycles.

The increasing sensitivities of the individuals regarding environmental issues do not always go in parallel with their will to change their deep-rooted behaviors. For this reason, the local administrations should undertake the responsibility of explaining to the people that the streets belong to them in a common ownership, thus the streets need to be utilized in a joint, harmonious and protective manner, and organizing awareness campaigns related to sustainability aimed at changing the negative behavioral patterns in relation to creating public awareness (Anonymous, 1996).

We need to consider the environment, economy and society as a whole while thinking about the requirements of the future generations; in other words, we have to adopt a sustainable growth approach and review our habits with this perspective. For this aim, we first need to change our habits in transportation considering the fact that one of the most important elements affecting life in the cities is transportation. In short, the solution of the environmental problems, being a sum of the negative aspects of individual behavior, can only be possible by changing the cultural

values and the behavioral patterns of the individuals (URL 1)

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